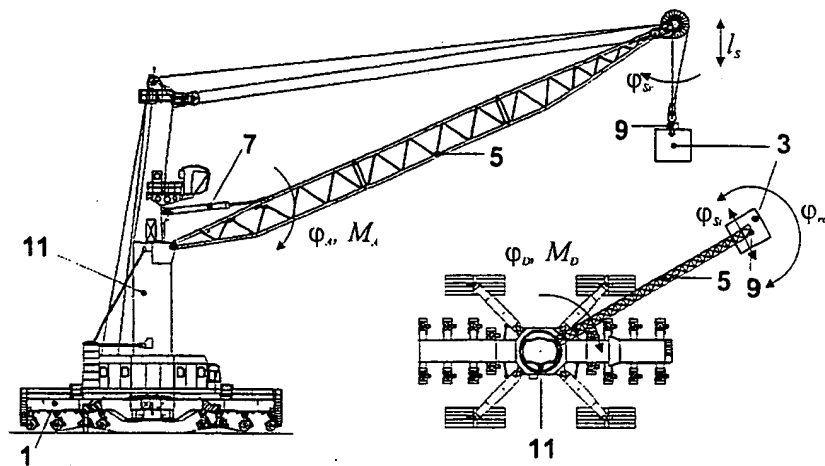


Fig.1



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Fig. 2

Operator

Hand lever

Set Point

Track control system

31

only for operations
with control system
For load oscillation
Damping

Hydraulic actuation system 21

Combustion engine 23

Proportional valve, variable displacement
pump turning mechanism

Motor 27

Proportional valve, variable displacement
Pump seesaw mechanism

Cylinder 29

Crane

Proportional valve, variable displacement
Pump hoisting gear

Motor 27

Proportional valve, variable displacement
Pump load swivel mechanism

Motor 27

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Fig. 3

Operator 33	Track control system 31	Crane
Hand lever 34	Module for optimized Movement guidance, Fully automated 37	Rotate tower
	Module for optimized Movement guidance. Semiautomated 39	Incline extension arm
	Underlying control System with load oscillation damping 36	To wind
Set point matrix 35		Load swivel mechanism
	Measured values crane position, load position	

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Fig. 4

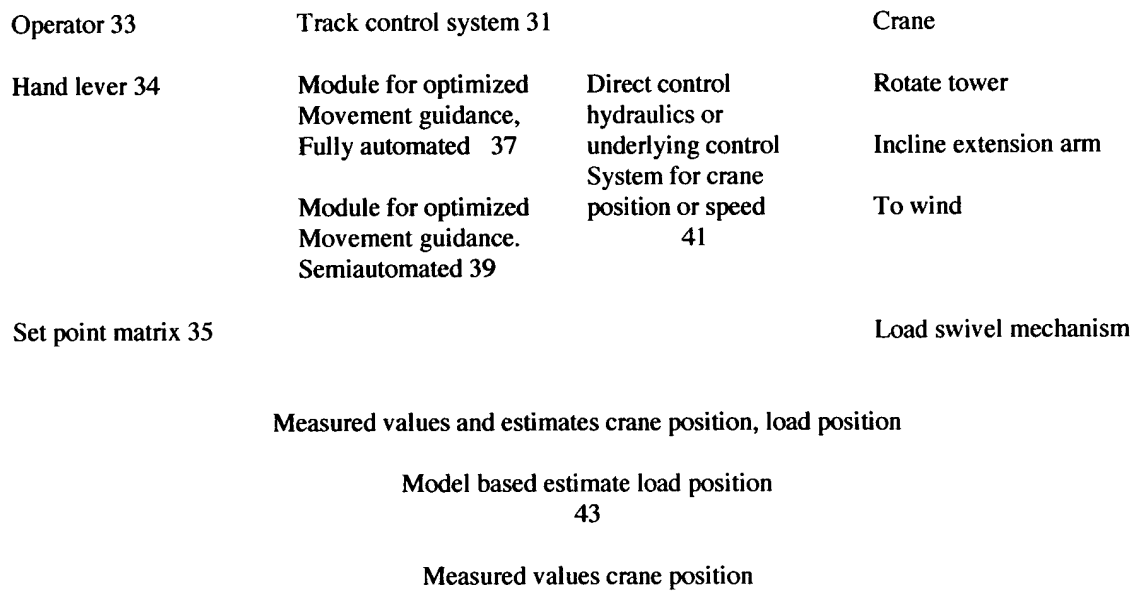


Fig.5

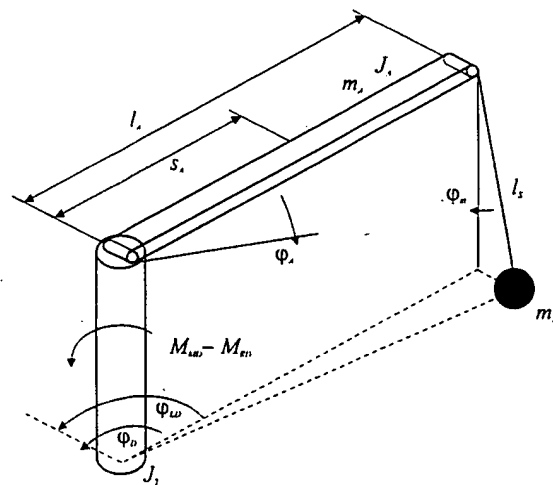
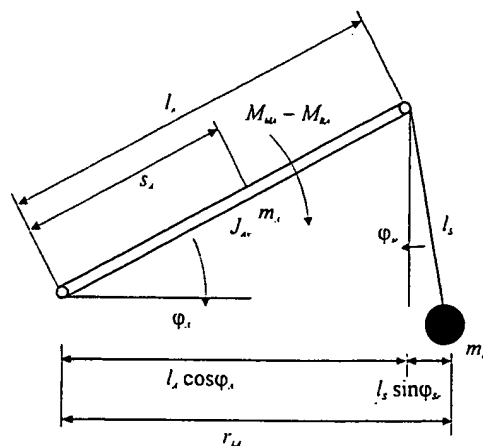


Fig.6



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Fig. 7

Extension Arm

Hydraulic cylinder

Crane tower

Fig. 8

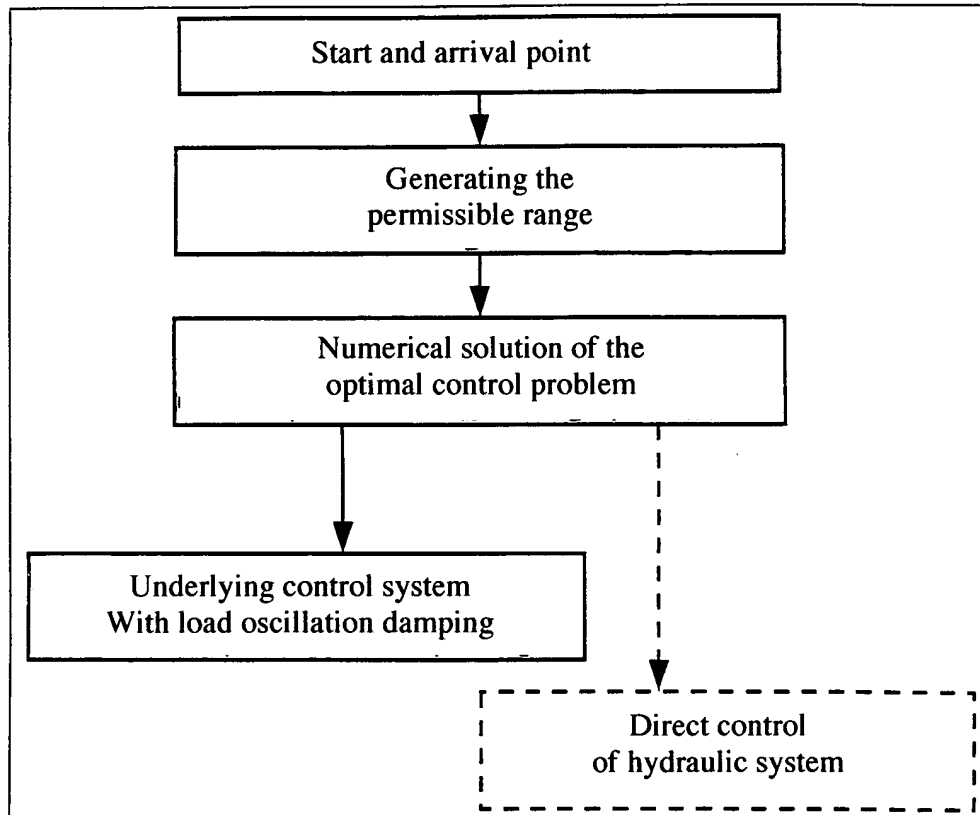
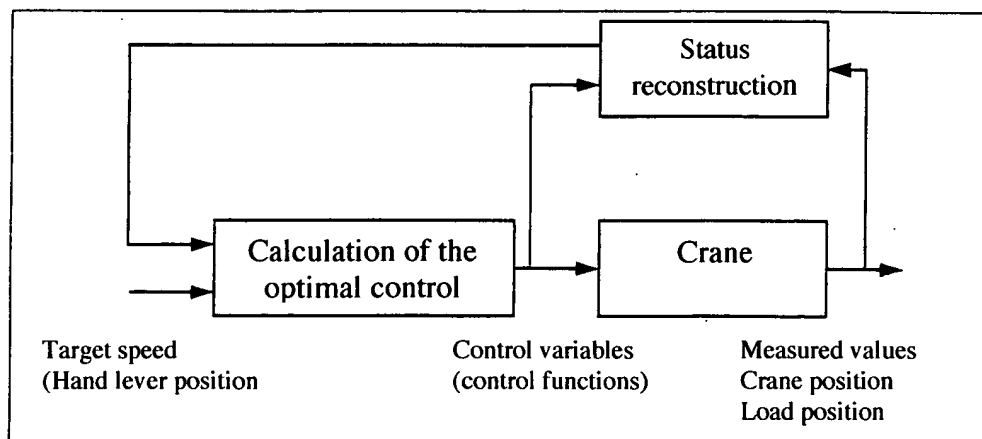


Fig. 9



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Fig. 10

Time

Time

Fig. 11

Control Voltage Hydraulics Turning Mechanism

Load Angle Speed

Time

Time

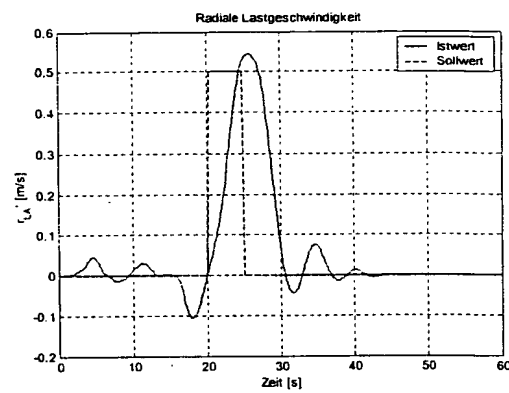
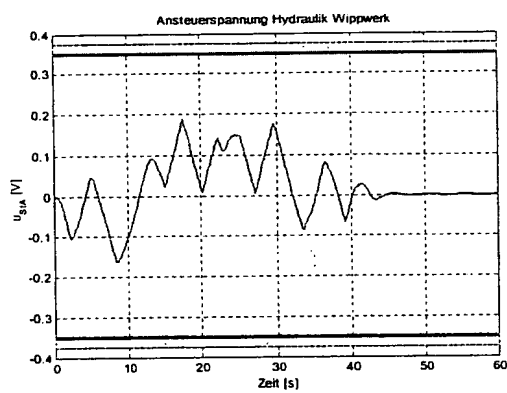
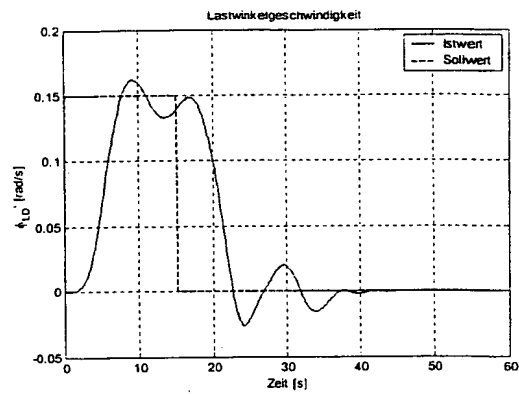
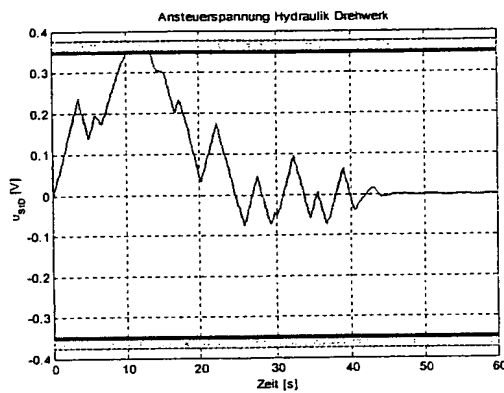
Control Voltage Hydraulics Seesaw Mechanism

Radial Load Speed

Time

Time

Fig. 11



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